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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,012	03/16/2004	Jun Ozawa	250567US26	1602

22850 7590 09/13/2007

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EXAMINER	
MOORE, KARLA A	
ART UNIT	**PAPER NUMBER**
1763	

NOTIFICATION DATE	DELIVERY MODE
09/13/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/801,012	OZAWA ET AL.	
	Examiner	Art Unit	
	Karla Moore	1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 July 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) *6-25* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 26-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 6 August 2007 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. Korean Patent Documents KR 0167480 and KR 0256215 have not been considered, as no copy was provided.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 26-27 and 30-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent Publication No. 2000-129442 to Futagawa et al.

4. Futagawa et al. disclose a processed object processing apparatus that processes objects to be processed substantially, comprising: first (Figure 1-- 3 and 4) and second (5 and 6) treatment systems that are communicably and adjacently connected in a line and in which the objects to be processed are processed; and one

load lock system (including multiple parts all cooperating to perform a load lock process/system--1, 7, 11 and 23) that is communicably connected to said first and second treatment systems, said load lock system having a transfer arm (Figures 1, 4a and 4b, 23) that transfers (indirectly) the objects to be processed into and out of each of said first and second treatment systems and a processed object holding part (Figures 4a and 4b, 9) holding the object to be processed; wherein said second treatment system is a vacuum treatment system, and said one load lock system is disposed in a position so as to form a line with said first and second treatment systems.

5. With respect to claims 26 and 27, the first and second systems are capable of being used simultaneously. Also, the transfer arm is capable of transferring an object to one of the systems while an object is being processed in the other. Further, while an object is being housed in the one load lock system the transfer arm is capable of transferring another object to be processed out of said first treatment system and into said second treatment system.

6. With respect to claim 30, the apparatus further comprises a loader module (19) this is communicably and adjacently connected to said one load lock system.

7. With respect to claim 31, the apparatus further comprises: a first connecting unit (gate valves, 2, located between first and second treatment systems at 10) connecting said first and second treatment systems, a second connecting unit (gate valve, 2, located between 6/part of second treatment system and 7/part of load lock system) connecting said second treatment system and said one load lock system; and a third connecting unit (gate valve, 2, located at outer surface of 7/load lock system for transfer

connection between 7/load lock system and 19/load module) connecting said one load lock system and said loader module, wherein said first, second and third connecting units are aligned in the same straight line.

8. With respect to claim 32, said load lock system is constructed such that an interior thereof is capable of being evacuated and opened to the atmospheric air (e.g. see paragraphs 66-82 of JPO online translation).

9. With respect to claim 33, a pressure inside said loader module is atmospheric pressure, i.e. the apparatus of Futagawa et al. is evacuated beginning and ending at the load lock system during processing (e.g. see paragraphs 66-82 of JPO online translation).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 2-5, 28-29 and 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent Publication No. 2000-129442 to Futagawa et al. in view of U.S. Patent No. 5,174,881 to Iwasaki et al.

13. Futagawa et al. disclose a processed object processing apparatus that processes objects to be processed substantially as claimed and comprising: first (Figure 1, 3 and 4) and second (5 and 6) treatment systems that are communicably and adjacently connected in a line and in which the objects to be processed are processed; and one load lock system (including multiple parts, 1 and 7) that is communicably connected to said first and second treatment systems, said load lock system having a transfer arm (Figures 4a and 4b, 14) that transfers the objects to be processed into and out of each of said first and second treatment systems and a processed object holding part (Figures 4a and 4b, 9) holding the object to be processed; wherein said second treatment system is a vacuum treatment system, and said one load lock system is disposed in a position so as to form a line with said first and second treatment systems.

14. However, Futagawa et al. fail to teach that either of the first or second treatment systems comprises a chemical oxide removal (COR) treatment system.

15. Iwasaki et al. teach providing a COR treatment system as part of an inline system comprising thin film deposition apparatus for the purpose of removing a naturally grown oxide film and other contaminants from the substrate surface and continuously forming thin films on wafers without exposing the wafer to the air at relatively lowered

temperatures without giving an damage to the substrate surface (column 4, rows 23-29).

16. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a (COR) treatment system in Iwasaki et al. in order to form an inline system comprising thin film deposition apparatus comprising means to remove a naturally grown oxide film and other contaminants from a substrate surface and continuously form thin films on wafers without exposing the wafer to the air at relatively lowered temperatures without giving an damage to the substrate surface as taught by Iwasaki et al.

17. With respect to claim 3, in Futagawa et al. said at least one vacuum treatment system is a heat treatment system (abstract) that is connected to said chemical oxide removal system, the heat treatment is carried out on objects to be processed that have been subjected to a chemical oxide removal treatment. Examiner notes with respect to the order of treatment, which is viewed as an intended use, that the courts have ruled that a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987)

18. With respect to claim 4, also in Futagawa et al., each of the chemical oxide removal treatment system and the heat treatment system are only accessed by load lock chambers in a vacuum state and are never exposed to atmosphere.

19. With respect to claim 5, further, as described above, in Futagawa et al. said load lock system is disposed in a position such as to form a line with said at least one vacuum treatment system.

20. With respect to claims 28 and 29, the first and second systems, one of which could be a COR system, are capable of being used simultaneously. Also, the transfer arm is capable of transferring an object to one of the systems while an object is being processed in the other. Further, while an object is being housed in the one load lock system the transfer arm is capable of transferring another object to be processed out of said first treatment system (e.g. COR treatment system) and into said second treatment system.

21. With respect to claim 34, the apparatus further comprises a loader module (19) this is communicably and adjacently connected to said one load lock system.

22. With respect to claim 35, the apparatus further comprises: a first connecting unit (gate valves, 2, located between first and second treatment systems at 10) connecting said first and second treatment systems, a second connecting unit (gate valve, 2, located between 6/part of second treatment system and 7/part of load lock system) connecting said second treatment system and said one load lock system; and a third connecting unit (gate valve, 2, located at outer surface of 7/load lock system for transfer connection between 7/load lock system and 19/load module) connecting said one load lock system and said loader module, wherein said first, second and third connecting units are aligned in the same straight line.

23. With respect to claim 36, said load lock system is constructed such that an interior thereof is capable of being evacuated and opened to the atmospheric air (e.g. see paragraphs 66-82 of JPO online translation).

24. With respect to claim 37, a pressure inside said loader module is atmospheric pressure, i.e. the apparatus of Futagawa et al. is evacuated beginning and ending at the load lock system during processing (e.g. see paragraphs 66-82 of JPO online translation).

Response to Arguments

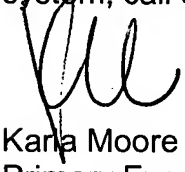
In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a load lock chamber having a transfer arm located therein) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). As pointed out in the previous office action and above, the claimed load lock system has been interpreted as multiple parts that all cooperate to form a load lock process/apparatus/system. Applicant's claims 1 and 2 do not recite a load lock chamber having a transfer arm located therein as argued.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 9:00 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571.272.1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Karla Moore
Primary Examiner
Art Unit 1763
4 September 2007